



FEDERAL BUREAU OF INVESTIGATION

Strategic Perspective: Executive Analytic Report

20 May 2014

(U) Autonomous Cars Present Game Changing Opportunities and Threats For Law Enforcement

Directorate of Intelligence/Strategic Issues Group



(U) Revolution in Roadway Transportation

(U//~~FOUO~~) The FBI assesses that if autonomous cars are approved by Congress for use by the public nationwide in the next five to seven years, these vehicles will have a high impact on transforming what both law enforcement and its adversaries can operationally do with a car. State regulators in California, Florida, and Nevada already legalized the use of these vehicles within their states. Michigan and Washington, DC allow field testing of prototype autonomous cars by research to occur in their jurisdictions. Manufacturers already institute a number of automated components in manually driven cars coming off the assembly line today, including brake deployment at pre-set standoff distances from vehicles in front and headlights that turn on upon detecting dusk.

(U//~~FOUO~~) There are both substantial opportunities and risks presented by autonomous driving that will increase the tactical performance of physical tasks that a person may be inhibited by while driving a car manually today. Autonomy will improve driving safety and make mobility more efficient. [REDACTED]

(U) Background on The Concept

(U) Autonomous cars are motor vehicles that can perform road navigation and have awareness of the environment, including accommodating obstacles and avoiding interference with other vehicles, without human input. Radar, lidar, global positioning systems, and computer vision inform automated control systems on direction, speed, and recognition of landmarks or signage. Using cameras and algorithms, the car can also comply with standard rules of the road including stopping at traffic lights, indicating if the car can turn on a red light, or refraining from changing lanes when there is a double yellow line.

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(U) Google Car



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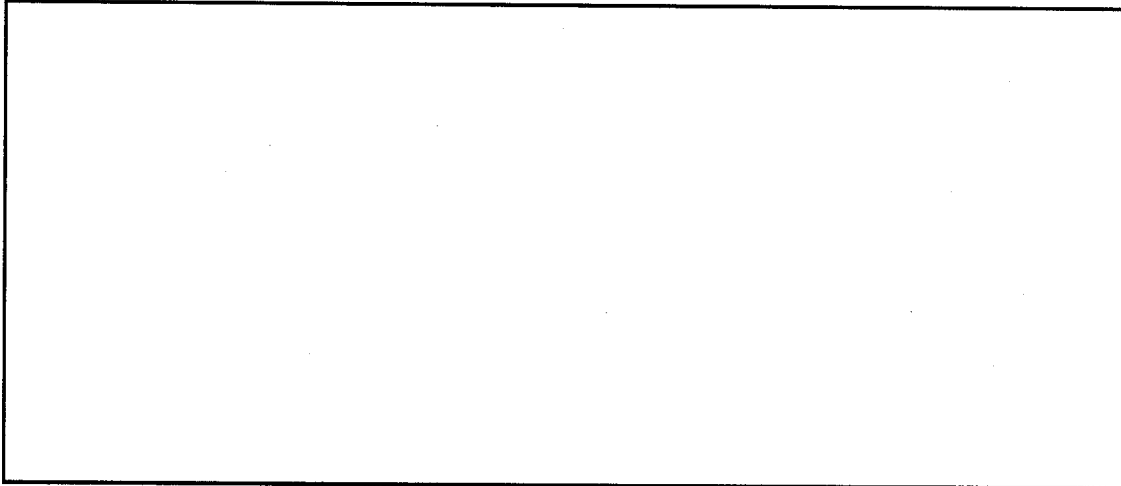
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(U) Opportunities for Increased Operational Capability for Both Blue Forces and Adversaries

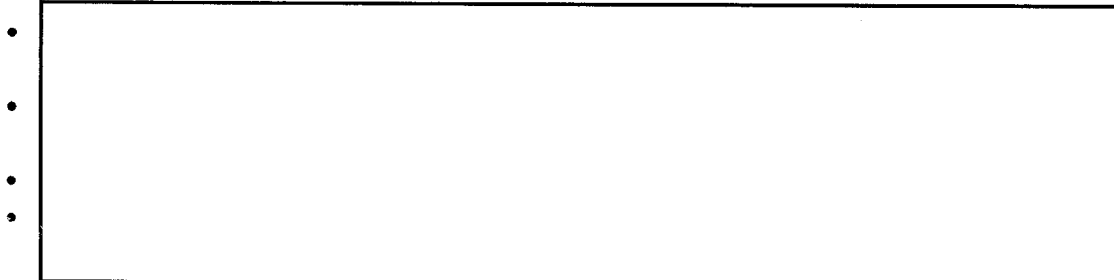
(U//~~FOUO~~) US law enforcement can capitalize on numerous benefits of autonomous cars.



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(U//~~FOUO~~) Implications for First Responders

(U//~~FOUO~~) Autonomous vehicle technology will not only impact law enforcement, it will impact the first responder community. Potential issues for consideration include:



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This SPEAR was produced by the FBI Strategic Issues Group's Senior National Intelligence Officer for Science and Technology-based Threats.

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